

How the Integrated Logistics Concept Will Fix Our Outdated Maintenance System

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How the Integrated Logistics Concept Will Fix Our Outdated
Maintenance System

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Joint Vision 2010 (JV 2010), the Joint Chiefs of Staff plan for the twenty-first century, identifies focused logistics as one of the four pillars for continued military success (24). The current Marine Corps logistics system, with processes developed in the 1960s and technology from the 1970s, is clearly in need of transformation in order to comply with the focused logistics element of JV 2010. The Integrated Logistics Concept (ILC), an overarching plan for logistics reform, addresses the challenge of redesigning Marine ground equipment maintenance.

The ILC will necessitate a significant cultural change, but the changes to the ground maintenance structure under ILC will allow us to focus on core competencies. It will result in cost savings and a reduced time to repair equipment, while enabling the Marine Corps to transform its outdated logistics system in preparation for the challenges of the twenty-first century.

What are the changes?

There are two major initiatives under ILC:

- Moving 4th echelon maintenance and secondary reparable management to the depot level at Marine Corps Material Command (MATCOM),

- Moving 2nd and 3rd echelons of maintenance to the intermediate level, which will reduce the existing maintenance structure from five levels to three.¹

The focus of this paper is on the second initiative, consolidation of 2nd and 3rd echelons of maintenance.

Why change?

The ILC represents a vast overhaul of the way the Marine Corps currently conducts logistics. From inventory reduction and supply chain management, to information systems reduction, several key functions are under review. One of the key findings of the ILC case study is focus on core competencies. It states

...the Marine Corps must transform its logistics structure to allow commanders to focus on their core competencies, while providing support from tailored logistics units with the right asset mix, skill sets and sustaining enablers (4-4).

According to LtGen. McKissock, Deputy Commandant for Installations and Logistics, one of these competencies should be response time.

Rather than having to wait 57 days for a vehicle to return from the shop, Marines should expect about the same turnaround time as they experience at their local car dealer(Erwin 18).

Focused logistics, as defined in JV 2010, calls for "responsive, flexible, and precise support...that fuses

information technology, logistics and transportation..."(24).

The ILC will increase maintenance responsiveness by eliminating redundant processes and using information technology to identify and track items in the maintenance cycle.

The importance of timely maintenance to maintaining and sustaining combat ready forces cannot be underestimated. As with any commercial business, the Marine Corps maintenance system needs to ensure customer satisfaction and constant improvement in the level of service.

What are the benefits?

Hitt, Hoskission, and Ireland define core competencies as the "resources and capabilities that serve as a source of competitive advantage for a firm..." (113). In today's commercial world, focusing on core competencies is critical to gaining and maintaining competitive advantage.

...we are seeing more companies focus on their core capabilities, where they can excel and add distinctive value, rather than try to develop capabilities in all areas of the value chain (Copacino 38).

Similarly, the ILC case study identified one of its key objectives as "enable our operational commanders to

focus on their mission, to do what they do best, thereby freeing scarce resources (people and systems) to concentrate on core competencies" (4-13).

Currently, equipment maintenance is performed in every element of the Marine Air Ground Task Force (MAGTF). Nearly every command at the battalion level or higher possesses a maintenance shop of some kind. Because of this, no single commander is responsible for equipment readiness within the MAGTF.

Clearly, the core competency of ground and air elements of the MAGTF is combat, while that of the combat service support (CSS) element is sustainment. By moving all maintenance to the CSS element, the core competencies can be realigned, thus, enabling ground commanders to focus on combat, and CSS commanders to focus on sustainment of the combat forces.

Another benefit of focusing on core competencies is that technicians will be better trained. Currently, the unit to which the technician is assigned limits the level and type of maintenance performed. If assigned to a 2nd echelon shop, Marines will not perform the maintenance actions performed by their peers at 3rd echelon shops. This creates skill gaps among technicians, especially early in their careers, and disparities between groups. This also

leads to delays necessitated by escalating repair problems to higher levels.

Clearly, by focusing all maintenance activity under the CSS element, the Corps will be able to better align core competencies within the MAGTF, have a single commander responsible for equipment readiness and improve the skills and training of our technicians.

A further benefit is cost savings. Reducing the number of maintenance shops will result in a significant reduction of overhead costs. According to the ILC case study, technical manuals at all of the organizational maintenance shops in the MEF total over 500 cubic feet, equivalent to five C-141's of lift (A-30). With consolidation, the reduction in redundant sets of tools, technical manuals, and test equipment will provide substantial savings. For example, the cost of tools is approximately \$660,000 for an infantry battalion, and \$60 million for a division (ILC case study A-30).

Last, ILC changes will reduce repair time. By reducing the amount of time spent on repetitive administrative tasks, inspections and reconciliation, a reduction in time spent on non-value added activities will be achieved. The current process to repair an item takes, on average, 42 days at 2nd echelon, and 15 days at 3rd

echelon (ILC case study A-27). By eliminating duplicative processes, the initiating unit can reduce the repair time to 27 days².

What are the impediments?

Probably, the single greatest challenge to the ILC team is resistance to change. As with any major change, there is resistance from members of the organization who fear change. Additionally, the hierarchical structure of the Marine Corps does not lend itself to radical change.

One way to overcome this resistance is through incremental change (Hitt, Ireland, Hoskisson 507). The ILC team is using this strategy by testing the concept with the 2nd FSSG. After analyzing the results, they plan on implementing a test within the ground combat element, before eventually incorporating the change throughout the Corps. This strategy of incremental test, adjusting for results and then implementing, should help establish ILC credibility and overcome resistance.

As indicated by, Hitt, Ireland and Hoskisson, effective communication, and active support from top management are essential to implementing successful change (507). LtGen. McKissock has briefed and received "buy in" from the general officer ranks. Additionally, There is an

ILC web site that publishes new updates to the program every week.

Another factor for reducing resistance to change is participation of all parties involved (Robbins 548). The ILC team has had participation from all levels of the maintenance system. From the initial development of requirements to the on-going process teams, Marines from all ranks and commands throughout the Corps are participating. Clearly, the ILC team is doing all it can to reduce the resistance to change.

Another impediment to acceptance will be the difficulty in turning over a current capability to another command. Some have argued, "the GCE commander is best suited to manage his organic maintenance capability" (Sylvester et al. 68). Loss of control is and understandable fear. However, the potential benefits are too important to ignore. This resistance can also be reduced by some degree of permanent integration. Units could receive support in garrison from the CSSE that would work with them when they are deployed. This habitual relationship, similar to what is currently used by combat support units and the supported infantry battalion, will foster trust.

Summary

The greatest risk to the Marine Corps maintenance system is to continue the status quo. The current system is costly and inefficient. The greatest challenge will be to overcome resistance to change. The ILC team, through collaboration with the maintenance community and with the support from the Corps leadership, can successfully overcome this resistance. Transformation of the current process into a responsive, flexible system is necessary to respond to the speed and tempo of twenty-first century warfighting.

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Notes

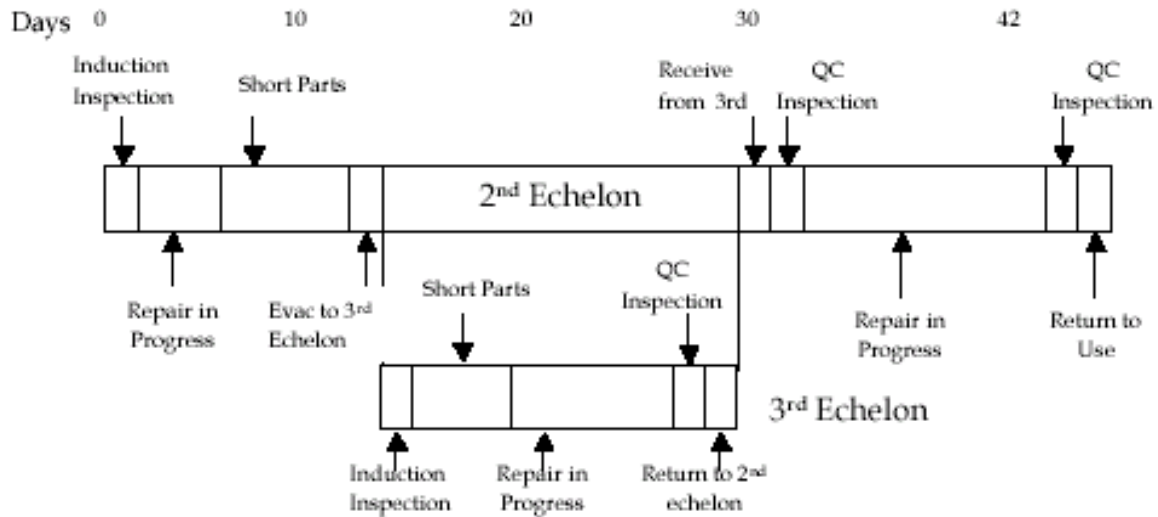


Figure 1: Current timeline for 2nd/3rd echelon maintenance process

¹ Per MCWP 4-24, there are currently three categories of maintenance: organizational, intermediate and depot, and within these categories are five echelons of maintenance. 1st and 2nd echelon are performed at the organizational level, 3rd and 4th echelons at the intermediate level and 5th echelon at the depot level (1-3, 1-5). The new process will reduce the number of echelons to three: organizational (performed by the operator/crew), intermediate (performed by technicians at the supporting CSSE), and depot (performed at the Marine Corps Logistics Bases).

² The current maintenance process, depicted in figure 1 above, shows the amount of time wasted on repetitive actions performed by 2nd and 3rd echelon technicians. For an item to be evacuated to 3rd echelon for maintenance, all actions must be taken by the 2nd echelon technician before it can be evacuated. As the figure above shows, inspections and parts ordering are activities that are repetitive. Additionally, repair actions occur in series. With consolidation, these activities will be removed with results in the savings of 15 days, the time shown in the figure in the 3rd echelon bar. This time will be saved because the same mechanic will accomplish all these actions.